Casemix Service
HRG4

HRG4 2009/10 Local Payment Grouper User Manual

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HRG4 2009/10 Local Payment Grouper User Manual

Changes and corrections are made to this manual from time to time. Please check the Casemix website for the most up-to-date version at: http://www.ic.nhs.uk/hrg4groupermanual.

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Record Definition Files

The grouper relies on a text file called a Record Definition File (RDF) to indicate the field position (column number) of each of the mandatory fields in the input file. The entries in the RDF act as a pointers so that the grouper knows the location of each field in the input file. Each time the grouper is run, the user must ensure that an appropriate RDF is selected.

For convenience, the grouper installation includes sample RDFs; one for each of the data types that the application can process. These files can be found in the grouper installation folder. The grouper provides methods for creating user-defined RDFs (see below) but the user may find that the sample RDFs provided with the application are sufficient.

It is not necessary for the RDF to specify the positions of all the fields in the input file; only the mandatory fields must be specified. For a list of mandatory fields for each data type see the Guide to File Preparation document.

Where the input file contains fields that are not specified in the RDF, the grouper simply ignores these fields during processing and passes them to the output file. The only reason to specify non-mandatory input fields in the RDF is where the grouper's internal file viewer is used to view output files. The internal file viewer displays only those fields that are specified in the RDF.

Grouping Modes

The grouper offers three modes of operation:

- Non-interactive file grouping using the command-line mode.
- Interactive file grouping using the graphical user interface.
- Interactive record grouping using the graphical user interface (single spell grouping)

Running the Grouper from the Command Line (non-interactive mode)

The Grouper can process a file using the command line and parameters below (mandatory parameters are enclosed within <angle brackets>, optional parameters are enclosed within [square brackets]):

HRGGrouper -i<Input File> -o<Output File> -d<Record Definition File> -l<Grouping Logic> [-h]

An example command line to run the grouper is shown below:

```
HRGGrouper -i "C:\Grouper Testing\HRG4\1000 episodes\1000
episodes.CSV" -o "C:\Grouper Testing\HRG4\1000 episodes\1000
episodes-out.csv" -d "C:\Program Files\IC\HRG4 2009_10 LP
Grouper\HRG4_sample_APC.rdf" -l apc_v42lp -h
```

The available Grouping Logic parameters are:

`apc_v42lp` Admitted Patient Care

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`nap_v42lp`	Non-Admitted Patients
`em_v42lp`	Emergency and Urgent Care (HRG4)
`ae_v32lp`	Accident and Emergency v3.2 (HRG v3.5)
`acc_v42lp`	Adult Critical Care

Please note that the grouping logic parameter names above end in `lp` as an abbreviation for 'Local Payment'; the penultimate character is the twelfth letter in the alphabet, not a numerical digit representing 'one'.

Any messages generated by the application while running in command-line mode, such as the number of records processed, are written to the HRG.LOG file.

Before running the command, the working directory must be set to the directory of the Grouper executable (HRGGrouper.exe). Use path names for the input file, the output file and the record definition file where they are located in other directories.

A sample batch file is shown below:

```
C:
cd "C:\Program Files\IC\HRG4 2009_10 LP Grouper"
HRGGrouper -i "C:\Grouper Testing\HRG4\1000 episodes\1000
episodes.CSV" -o "C:\Grouper Testing\HRG4\1000 episodes\1000
episodes-out.csv" -d "C:\Program Files\IC\HRG4 2009_10 LP
Grouper\HRG4_sample_APC.rdf" -l apc_v42lp -h
```

Grouping in Interactive Mode

Interactive mode uses the grouper's graphical user interface. Start the grouper using the shortcut on the Windows Start menu.

Steps to group a file

1. Export data (e.g. from a Patient Administration System or other computer system) in comma-separated text format. It is strongly recommended that field names are included as the first row of the data extract; this makes it considerably easier to work with the file. The Guide to File Preparation document (available from the Casemix web site) specifies the input file mandatory fields and their formats.

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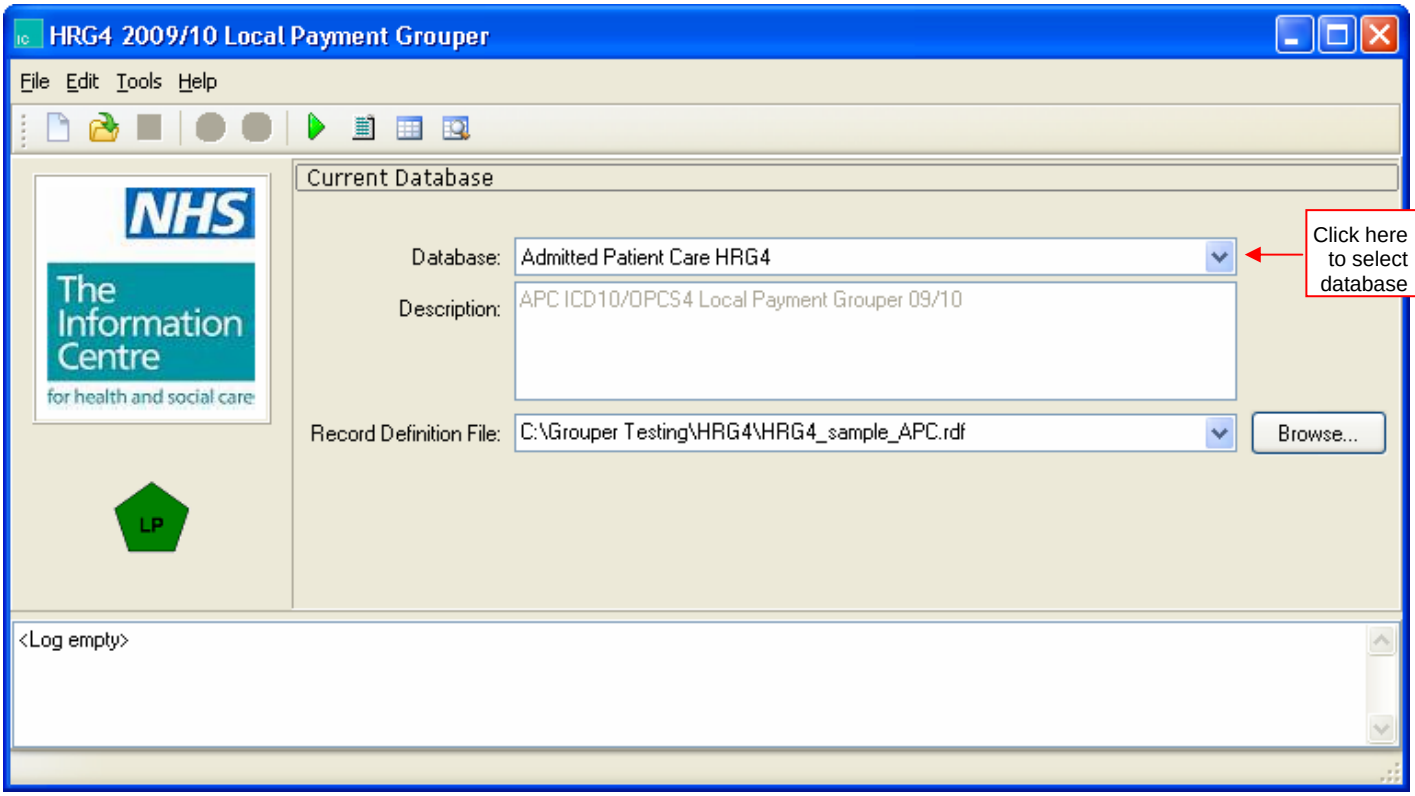
2. On the grouper main screen Current Database tab, select the Database that corresponds to the data type to be grouped.



3. Select an appropriate Record Definition File (RDF) for the database to be used for grouping. This is done by clicking the **[Browse…]** button and navigating to the appropriate RDF.

Ensure that the RDF is intended for use with the same data type as the selected database (e.g. if the selected database is Admitted Patient Care, ensure that the RDF was designed for Admitted Patient Care data). Failure to ensure that the data type of the RDF and the database match will lead to grouping errors.

If a suitable RDF does not already exist for the file being processed then the grouper can be used to edit an existing RDF or to create a new one. See the section on the Record Definition File Wizard below.

4. From the **[Tools]** menu select **[Process File…]**, this opens Process File dialog box.

5. Select the input file (the data to be grouped) using the browse button (folder icon) next to the input file field. Check the **[Input data has headings]** check box if the input data includes field names in the first row.

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6. Select the name and location for the creation of the output file using the browse button (folder icon) next to the output file field. The output file is the file that will contain the grouped data.

7. When all selections have been made, click the **[Process]** button to produce the grouped output file. A progress bar is displayed. When grouping Admitted Patient Care data, grouping is preceded by a data sorting phase; a separate progress bar is shown for sorting.

When grouping is complete, the Process File dialog box will close and the application returns to the Main Screen.

It is very important that the user examines the entries in the log area after grouping. If grouping fails, this will be reported in the log area.

Note that the output file is a text file and may therefore be opened using a variety of applications.

To open the output file from within the application, see the Display File section later in this document.

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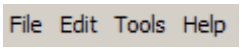
The Grouper Main Screen

The Main Screen has a main menu, a toolbar, a tabbed display and a log area.

• Main Menu



File

New RDF	Opens the RDF Wizard.
Open RDF	Opens a selected RDF for editing or review within the tabbed display area.
Save	Saves a currently open RDF (only available when an RDF is being edited).
Save As	Saves a currently open RDF with the option to rename or change location (only available when an RDF is being edited).
Exit	Closes the application.

Edit

Insert Field	Inserts a new line in an RDF for user-defined fields (only available when an RDF is being edited).
Delete Field	Deletes the currently selected user-defined field in an RDF (only available when an RDF is being edited).

Tools

Process File	Opens the Process File dialog box.
Display File	Opens a selected file within the tabbed display area.
Single Spell	Opens the Single Spell Grouping screen.
Run Reports	Opens the Run Reports dialog box – note that reports are not available in the Local Payment Grouper.
Select Database	Opens the Database Selection dialog box.

Help

Index	Opens the user manual.
Latest User Manual	Opens a web page where the latest user manual can be opened or downloaded.
About	Opens the About screen to display application version and contact information.

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• Toolbar

New RDF	Opens the RDF Wizard.
Open RDF	Opens a selected RDF for editing or review within the tabbed display area.
Save	Saves a currently open RDF (only available when an RDF is being edited).
Insert Field	Inserts a new line in an RDF for user-defined fields (only available when an RDF is being edited).
Delete Field	Deletes the currently selected user-defined field in an RDF (only available when an RDF is being edited).
Process File	Opens the Process File window.
Run Reports	Opens the Run Reports box – note that reports are not available in the Local Payment Grouper.
Display File	Opens a selected file within the tabbed display area.
Single Spell Grouping	Opens the Single Spell Grouping screen.

• Tabbed Display Area

This area shows screens that can be viewed by selecting the tabs at the bottom of the window when more than one of the following are open:

- Database Selection
- Record Definition File Editor
- File Display

• Log Area

This area displays progress and status messages during and after grouping.

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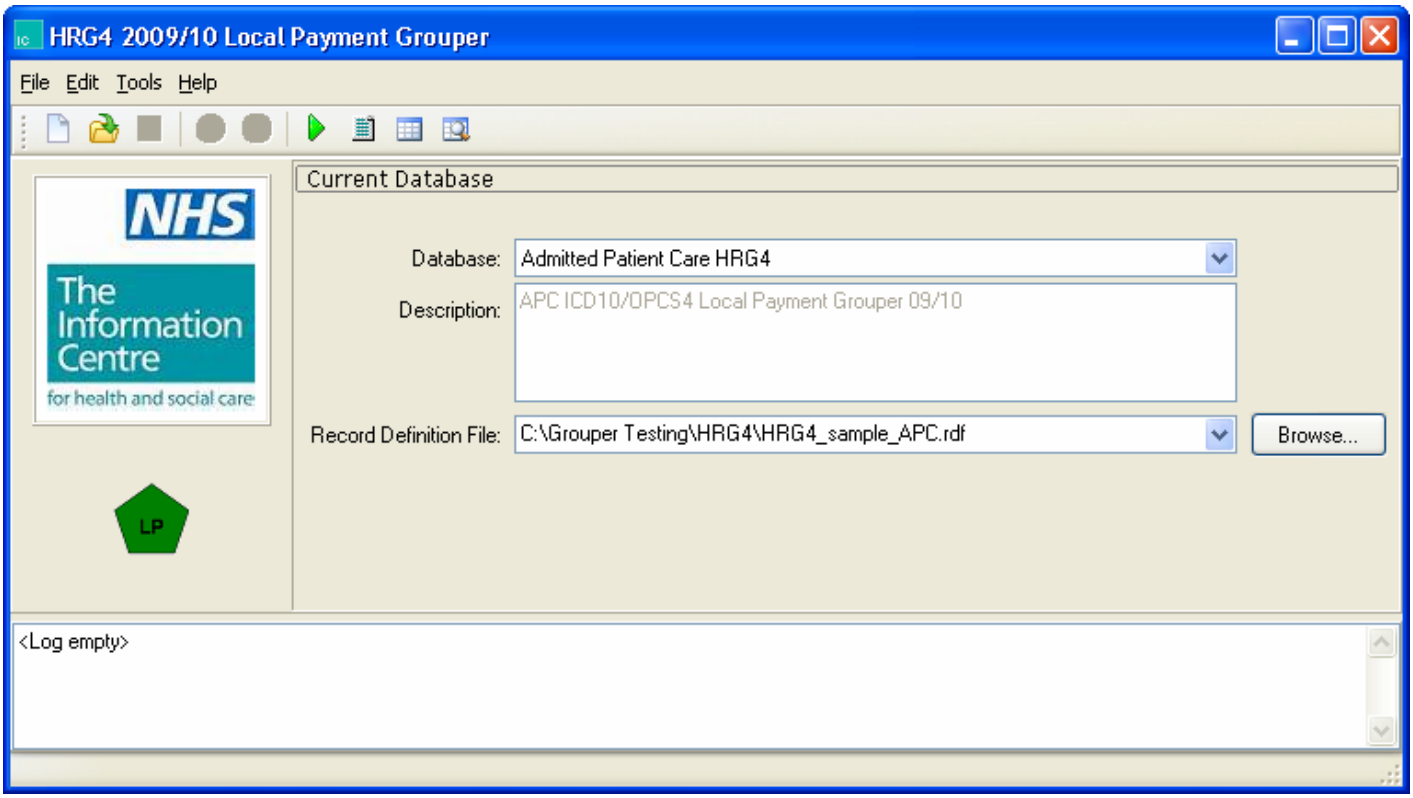
Current Database



The current database is shown on the main window of the application (see screenshot above).

The user must ensure that the Database selected matches the data type of the Record Definition File and the type of data to be grouped. Failure to ensure that the data type of the RDF and the database match will lead to grouping errors.

The Record Definition File drop-down box displays any Record Definition Files that have been used within the current session. The [Browse] button allows the user to locate Record Definition Files.

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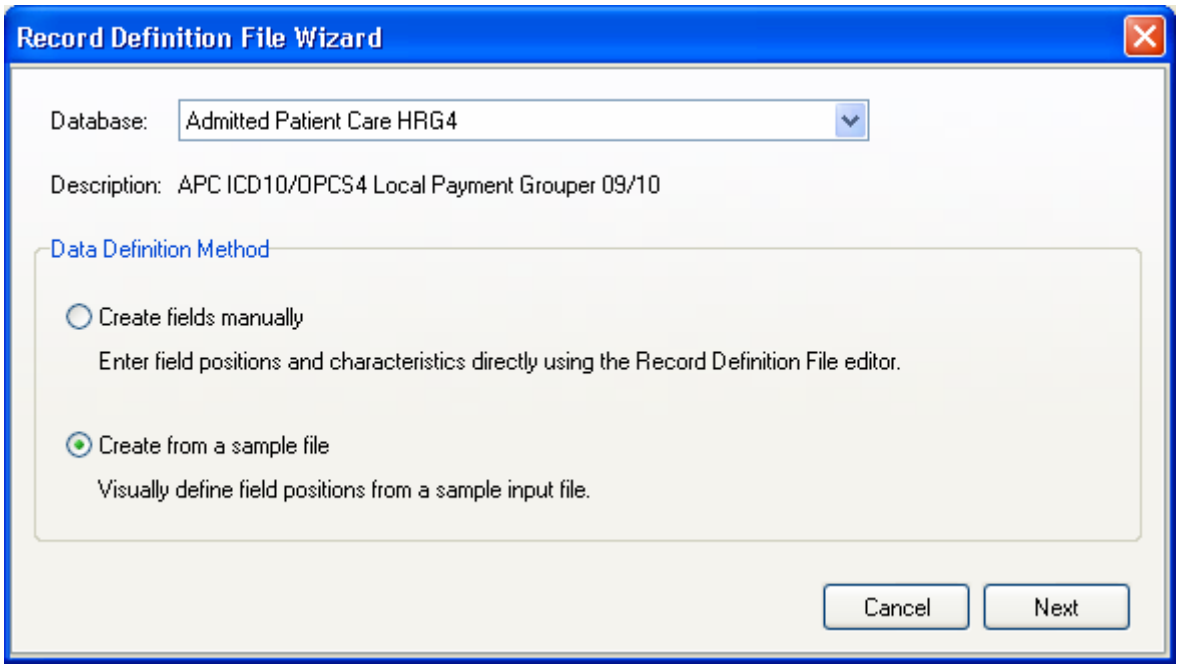
Record Definition File Wizard Step One

Note that sample Record Definition Files are provided as part of the grouper installation program; these can be found within the grouper program folder. User-defined RDFs allow users the flexibility of using the grouper with locally-defined input file layouts.


Record Definition File Wizard
Database:
Admitted Patient Care HRG4
Description: APC ICD10/OPCS4 Local Payment Grouper 09/10
Data Definition Method
Create fields manually
Enter field positions and characteristics directly using the Record Definition File editor.
Create from a sample file
Visually define field positions from a sample input file.
Cancel
Next

A Record Definition File (RDF) is required by the Grouper to identify the locations of the fields in the source data. The Record Definition File Wizard allows the user to create a Record Definition File.

The mandatory fields required in the RDF are different for each database.

The [Create fields manually] option allows the user to use a grid to define field positions and attributes. To jump straight to the RDF editor, select this option and click the [Next] button.

The [Create from a sample file] option allows the user to create an RDF interactively using a sample data file. Clicking [Next] will prompt the user to select the file on which the RDF is to be based.

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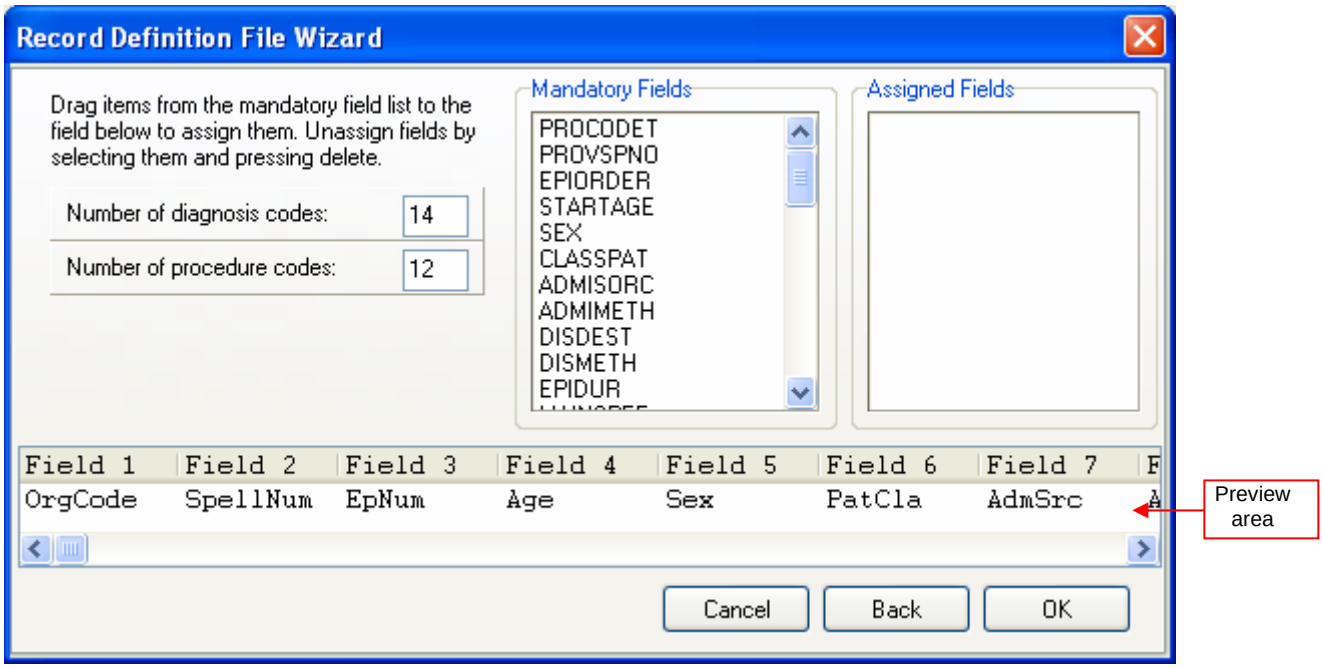
Record Definition File Wizard Step Two

Where the user selects **[Create from a sample data file]** from the dialog box described in Step One, the user is prompted to browse for the file, after which the dialog box shown below is displayed:



The first row of the data file is displayed in the lower part of the dialog box (the preview area), above it temporary field names (‘Field 1’ etc.) are shown.

The preview area automatically assigns field positions based on the comma positions in the file.

For Admitted Patient Care, the ‘Number of diagnosis codes’ and ‘Number of procedure codes’ values may be edited to allow the processing of files that contain a non-standard number of clinical codes. Other data types allow similar increases in the numbers of specific fields; see Guide to File Preparation for details.

All entries in the Mandatory Fields list must be assigned to fields in the sample file. Fields are assigned by dragging the name from the list to the appropriate field in the preview area. Fields appear in the Assigned Fields list as they are used. The screenshot below shows the process partially completed (first three fields assigned).

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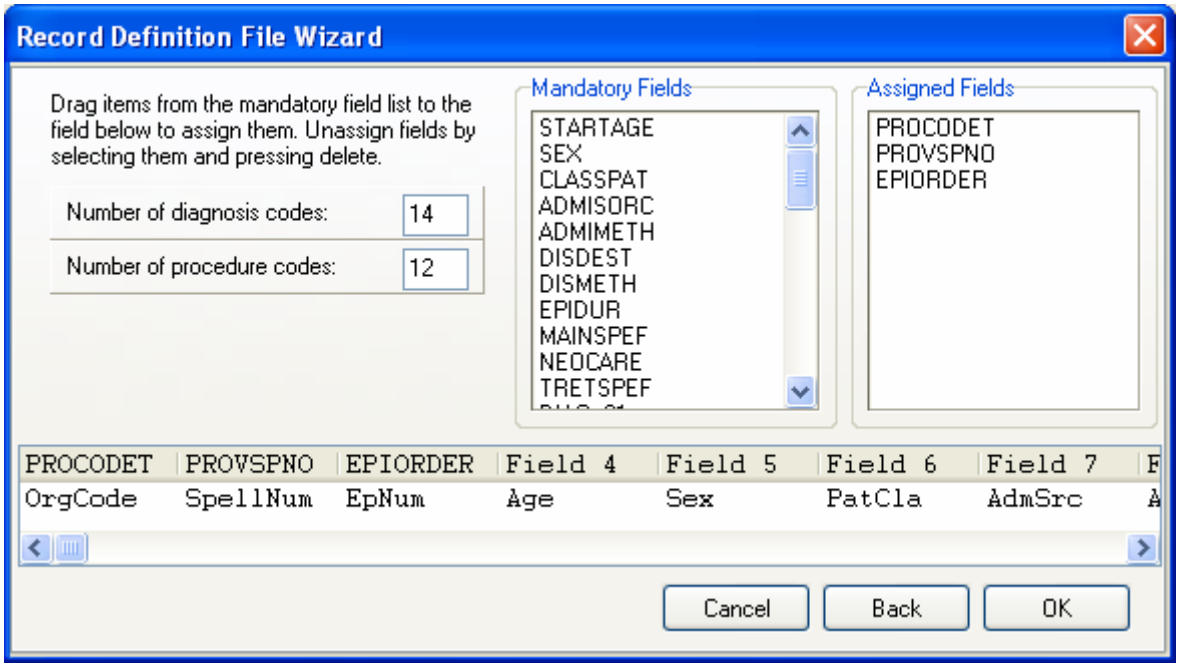

Multiple fields can be selected using the SHIFT and CTRL keys in combination with mouse clicks. The selected collection of fields can then be dragged to the preview area.

To remove an assigned field, select it in the Assigned Fields list and press the Delete key. The field will be returned to the bottom of the Mandatory Fields list (not its original position).

When all fields have been assigned, click [OK] to proceed. The RDF will be opened in the RDF editor, allowing checking and any required amendments.

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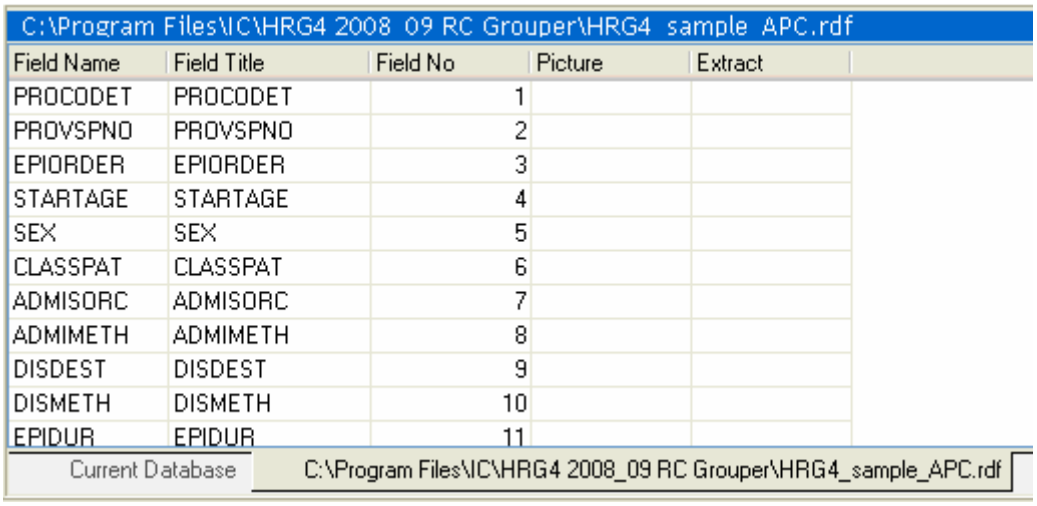
Record Definition File Editor


C:\Program Files\IC\HRG4 2008_09 RC Grouper\HRG4_sample_APC.rdf
Field Name | Field Title | Field No | Picture | Extract
PROCODET | PROCODET | 1
PROVSPNO | PROVSPNO | 2
EPIORDER | EPIORDER | 3
STARTAGE | STARTAGE | 4
SEX | SEX | 5
CLASSPAT | CLASSPAT | 6
ADMISORC | ADMISORC | 7
ADMIMETH | ADMIMETH | 8
DISDEST | DISDEST | 9
DISMETH | DISMETH | 10
EPIDUR | EPIDUR | 11
Current Database
C:\Program Files\IC\HRG4 2008_09 RC Grouper\HRG4_sample_APC.rdf

The RDF Editor provides a manual method of assigning field positions and attributes.

Field Name	Field abbreviation. This is for internal use and cannot be changed.
Field Title	Field description - can be edited by the user to show a meaningful name for the field.
Field No	The field position in a comma-separated input file, with the first field being number one.
Picture	Allows the user to provide filtering instructions to the Grouper by describing a 'Picture' of the field. During the processing the Grouper will apply this picture to the field and only use the specified characters. Click here for examples.
Extract	Allows the user to provide filtering instructions to the Grouper by describing an 'Extract' instruction. During processing the Grouper will apply this Extract instruction to the field and only the characters that the user has specified. Click here for examples.

The **[Insert]** toolbar button inserts a new field in the RDF. This feature is provided so that non-mandatory fields can be shown using the 'Display File' feature.

The **[Delete]** toolbar button removes a field from the RDF. Mandatory fields cannot be deleted.

When the RDF is saved the user will be informed if any validation checks (such as conflicting field positions) have been failed. These issues must be resolved before the file can be saved.

Process File

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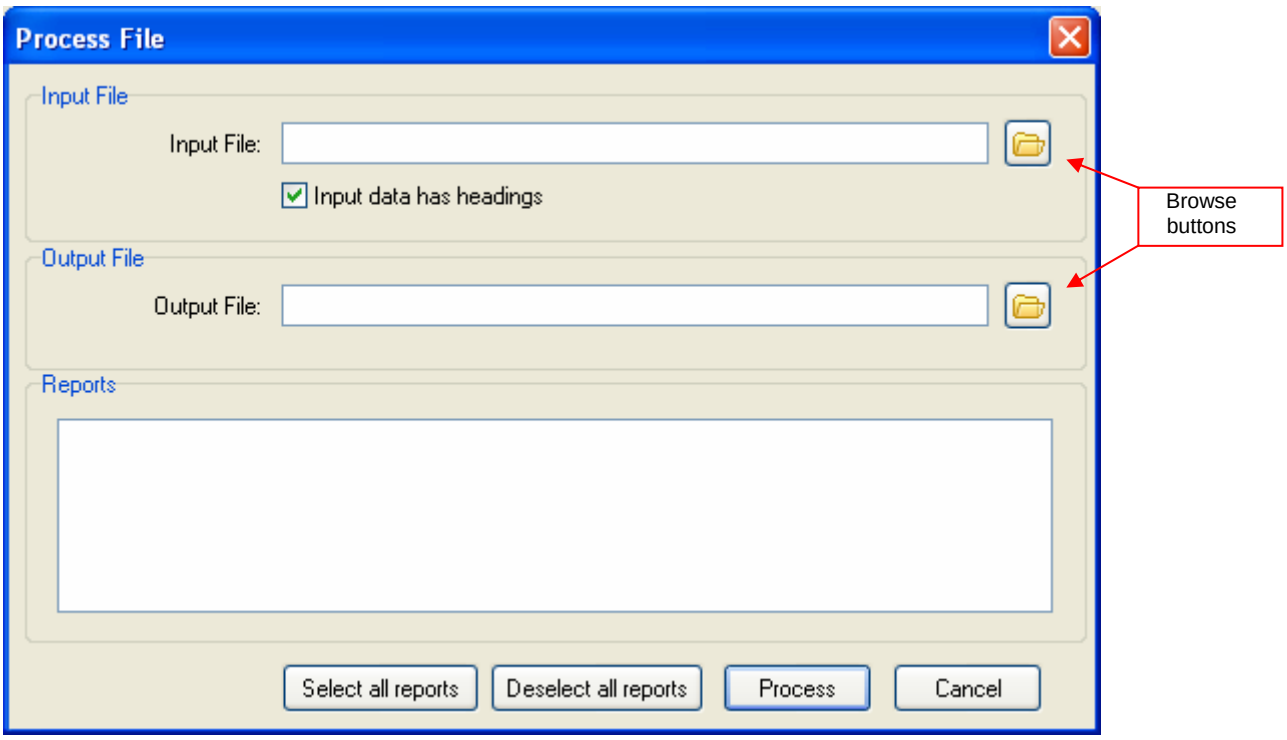
From the **[Tools]** menu select **[Process File…]**, this opens Process File dialog box. Select the input file (data file) using the browse button (folder icon) next to the input file field.

Note that with the default setting of 'Input files' selected in the 'Files of type' list, the 'Open' dialog box accessed via the browse button will list files with '.csv' and '.txt' extensions only. Change this value to 'All Files' if the input file has a different extension.

Check the **[Input data has headings]** check box if the input data includes field names in the first row.

Select the name and location of the output file using the browse button (folder icon) next to the output file field. The output file is the file that will contain the grouped data.



When all selections have been made, click the **[Process]** button to group the file. A progress bar is displayed.

When grouping is complete, the progress bar and the Process File dialog box will close; the application returns to the Main Screen.

It is very important that the user examines the entries in the log area after grouping. If grouping fails, this will be reported in the log area.

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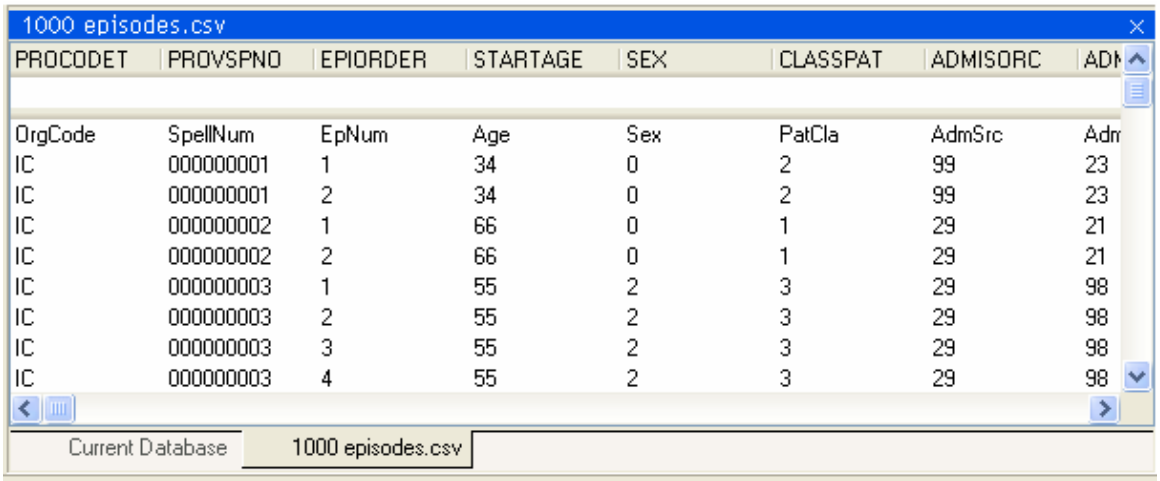
Display File

The application provides a ‘Display File’ facility, accessed from the ‘Tools’ menu, this file viewer can be used to examine grouper output files. The fields displayed using this facility are restricted to those defined in the Record Definition File. The field positions, pictures and extract values from the RDF are applied.

Note that the output files are comma-separated text files so can be opened using other applications (e.g. Microsoft Excel).



The space beneath each field name allow the user to enter filter criteria to limit the records displayed based on one or more starting characters. Pressing the Enter key activates the filter.

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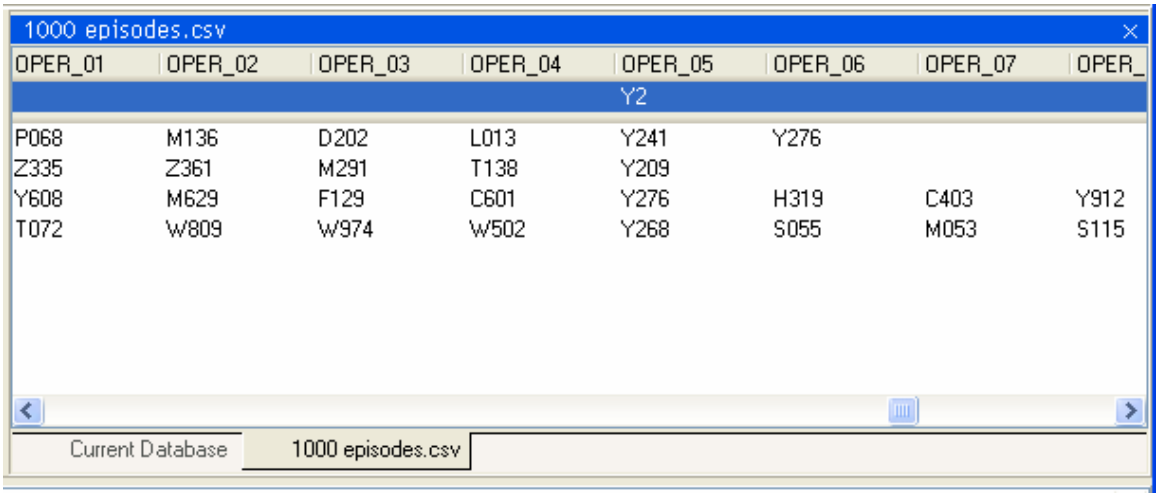
In the example below ‘Y2’ has been entered under OPER_5 to limit the list to those records where the OPCS code starts with ‘Y2’:



Double-clicking on a record within the display opens it in the Single Spell Grouping screen.

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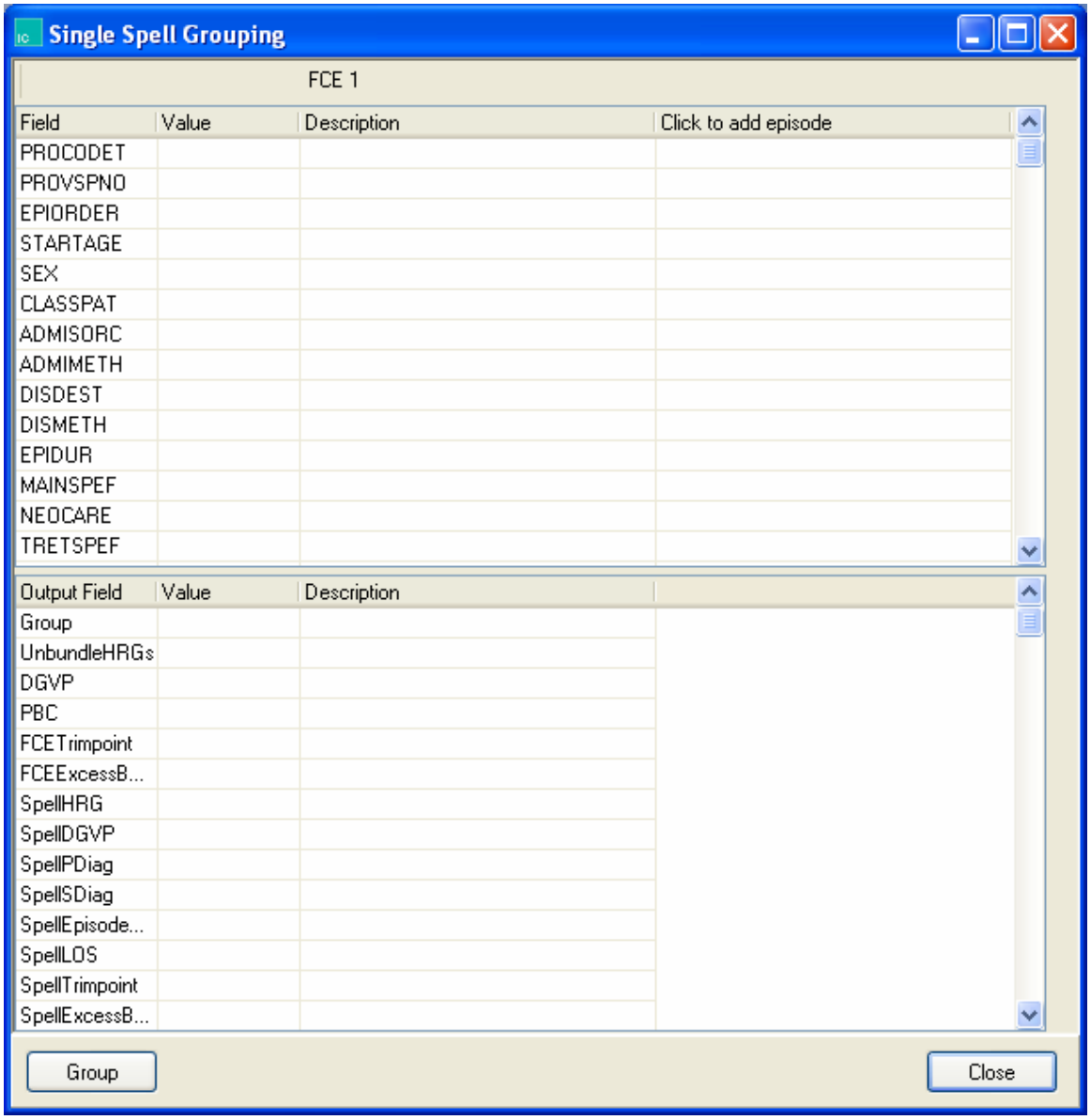
Single Spell Grouping

This option allows the interactive grouping of input data. The mandatory fields for the currently selected database are displayed within the upper area. The user can insert data by typing into the Value column. Pressing the Enter key displays the code's description where a valid code has been entered. A valid record definition file must be selected in order to use single spell grouping.

The single spell grouping dialog box is shown below:



Unlike the file grouping facility, the single spell grouping function does not attempt to validate input fields and will allocate an HRG provided there is sufficient information to do so, i.e. at least a valid primary diagnosis.

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Clicking the **[Click To Add Episode]** header bar will open an adjacent set of columns allowing values for a second episode to be entered and grouped as part of the same spell.

Clicking the **[Group]** button will process the values entered and will display the HRG and other derived information in the output (lower) area.

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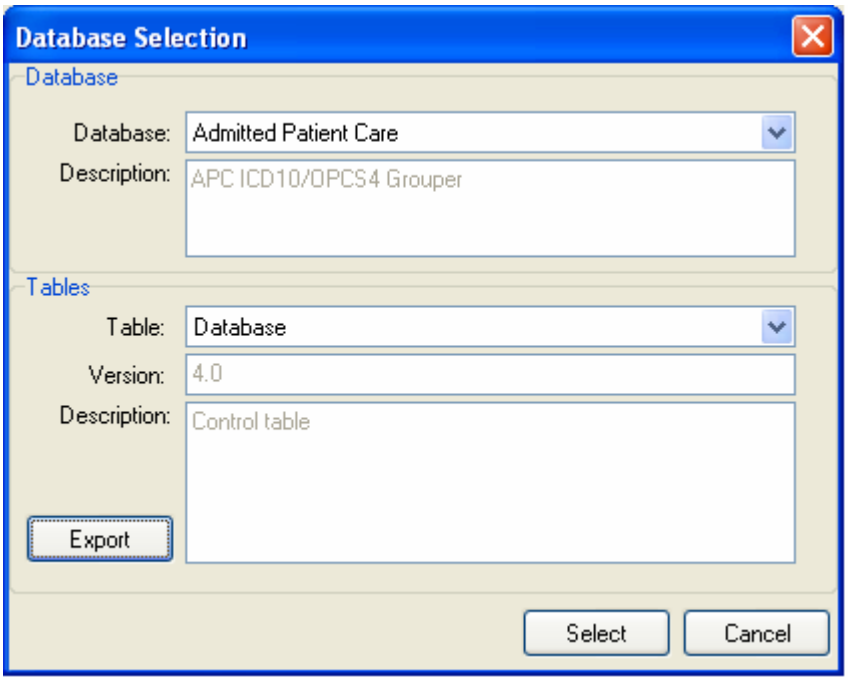
Database Selection Screen

From the **[Tools]** menu, select **[Select Database…]** to open the dialog box shown below:



This dialog box provides both an alternative mechanism for selecting the current database and a way of exporting database tables.

The Table drop-down box displays a list of data files that make up the currently chosen database. Selecting one will show a brief description of it in the accompanying area.

Clicking **[Select]** will set the Grouper to use the selected database.

Clicking the 'Export' button will export the selected table, the user being prompted for a filename and location.

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Reports

Unlike the Reference Costs Grouper, the Local Payment Grouper does not produce any reports.

The reference costs groupers and local payment grouper applications utilise the same code base; this means that reporting buttons and screens are available in the local payment grouper application. The report lists are not populated.

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Subtraction of Days from Admitted Patient Care Duration

The Grouper facilitates the subtraction of days for Critical Care from finished Consultant Episode and Hospital Provider Spell durations.

Where the user populates the input data fields with numbers representing the appropriate days of activity, these will be used by the grouper to calculate modified output fields.

Although the field is mandatory in the input data (i.e. the column must exist in the file) it may be left blank or populated with zeros. This could be appropriate where either there are no days to be removed or the relevant days have been removed from the input data prior to grouping.

For further guidance on using this facility, please see the document ‘Guide to File Preparation’ which is available from the Casemix website.

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Picture Field Examples

Example 1

Entering a Picture of 'AAA.AA' instructs the Grouper that the first three and last two characters of the field should be used. The fourth character is ignored.

Example 2

Entering a Picture of '.A.AAA' instructs the Grouper that the second character and last three characters should be used and the first and third characters should be ignored.

Example 3

Entering a Picture of '.A.' indicates that the Grouper should use the second character only and ignore the first and last characters.

Note that when entering the Picture fields the characters which are entered should not be separated by spaces, and the number of characters making up the Picture should equal the value entered in the Length field. So in the examples above the user will have entered the values '6', '6' and '3' respectively in the Length field.

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Extract Field Example

Example

Entering an Extract instruction of "." informs the Grouper that all occurrences of "." should be ignored when processing that field. This is a convenient way to remove decimal points from fields in the input batch file.

Note that when entering the Extract instruction, the Grouper can be informed that more than one character should be stripped from the field. For example by entering a value of ".$" in this field informs the Grouper that both the "." character and "$" character are to be ignored by the Grouper when processing that field.

Note that it is not possible to extract the comma character using this facility.

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Glossary

cc	Complications and comorbidities
CSV	Comma Separated Value
Diag	Diagnosis
HRGUSER.INI	The HRG program initialisation file
FCE	Finished Consultant Episode
HRG	Healthcare Resource Group
ICD-10	10th revision of the International Classification of Diseases
OPCS-4	4th revision of Office of Population Censuses and Surveys Classification of Procedures
PAS	Patient Administration System
PBC	Programme Budgeting Categories
PDiag	Primary diagnosis
PProc	Primary procedure
Proc	Procedure
RDF	Record Definition File
SSC	Specialised Services Code
Record Definition File	The file defining the format of the data to be processed by the Grouper
w	with
w/o	without

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Contact Information

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Help is available for both technical and general queries from the NHS Information Centre for Health and Social Care contact centre:

Telephone: 0845 300 6016 (Monday – Friday, 9am - 5pm)

Email: enquiries@ic.nhs.uk

http://www.ic.nhs.uk/casemix

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Appendix

Output Files

The output files aim to meet the needs of those familiar with relational data as well as those who require non-relational files. Specific relational outputs include "_rel" as a part of the output filename.

Generally, a single input file produces a number of output files. User requirements determine which files are used; some users may not require certain output files. In most cases an output field appears in more than one file. In the text below, the filename supplied by the user during processing is referred to as [filename].

Use of 'RowNo' and 'Iteration' Fields

The role of the 'RowNo' field is to provide a method of uniquely identifying FCEs within output files. The existence of a unique identifier for FCEs allows related records to be identified in different output files.

For example, in the case of unbundled HRGs, the file [filename]_ub_rel.csv shows the unbundled HRGs for each output row. The field 'RowNo' contains the 'RowNo' of the matching output record in the file [filename]_FCE.csv. If these files are imported to a relational database, the 'RowNo' fields can be used as the basis from which to derive keys to allow the relationship between these records to be represented.

Where there is more than one related record, for example where there are more than one unbundled HRGs for an FCE, the field 'Iteration' is used to differentiate between the multiple related records.

Examples of where 'Iteration' is used are:

- an input row may generate more than one unbundled HRG
- an input row may result in more than one data quality message

There is no significance to the numerical values of 'Iteration', the numbers are assigned in order according to the order of the input data (the sorted input data in the case of files that are sorted prior to grouping).

Admitted Patient Care

A single input file produces eleven output files.

1. File [filename].csv. A list of other output files; this file is for validation only and will normally be ignored by users.

2. File [filename]_sort.csv. This a copy of the input data after it has been sorted into Provider Code, Spell Number, Episode Number order prior to grouping. It also contains a unique row number added as a final column assigned after the sorting process. This row number is intended to be used as the key when using relational data.

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3. File_[filename]_FCE.csv. This file contains both FCE and spell output fields. The spell fields are repeated for each episode in the spell; beware of double-counting when using spell fields. The file structure is as follows:

<input data>	All of the input data for the FCE, including any non-mandatory fields are reproduced in the output.
RowNo.	The row number field mentioned in the "sort" file. It is unique within the file.
FCE_HRG.	The episode level Core HRG.
GroupingMethodFlag.	An indication of the grouping method used for the episode. "P" = procedure driven, "D"=diagnosis driven.
DominantProcedure.	The dominant procedure used for procedure based grouping.
FCE_PBC.	This field is populated in reference costs groupers only. It contains the Programme Budgeting Category.
CalcEpidur.	The calculated episode duration. This is the input Episode duration minus the number of critical care days entered.
ReportingEpidur.	The episode duration used when generating reports.
FCETrimpoint.	The episode trimpoint for the HRG allocated to the episode.
FCEExcessBeddays.	The number of days that the episode exceeds the trimpoint.
SpellReportFlag.	Used when generating reports from grouped data.
SpellHRG.	The spell level Core HRG.
SpellDominantProcedure.	DominantProcedure at spell level.
SpellPDiag	The primary diagnosis used when spell grouping.
SpellSDiag	The 1st secondary diagnosis used when spell grouping.
SpellEpisodeCount	The number of episodes in the spell
SpellLoS	The duration of the spell used for grouping
ReportingSpellLoS	The length of stay used when generating reports.
SpellTrimpoint.	The trimpoint for the HRG allocated to the spell.
SpellExcessBeddays.	The number of days the spell exceeds the trimpoint.
SpellCCDays	The number of critical care days in the spell.
UnbundledHRGs	A variable number of fields containing unbundled HRGs (at episode level). Unbundled HRGs are appended to the end of each record; there may be zero, one or more unbundled HRGs per record. For Specialist Palliative Care and Rehabilitation unbundled HRGs, where there is more than one daily HRG, the field consists of an HRG, followed by an asterisk, followed by the number of days, rather than the HRG repeated for every day. E.g. VC18Z*20 indicates VC18Z for 20 days.

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4. File_[filename]_spell.csv. This file could be considered semi-relational. It contains one row per spell. However, it also contains all of the SSCs generated for the spell in a flat structure like unbundled HRGs in the FCE output. The FCE input data is not reproduced. The row number in the first column refers to the first row number in the sort or FCE output and will always be the first episode in the spell after sorting.

RowNo.	The key into other files. Unless all spells in the input data each consist of a single episode, RowNo in the spell file is not continuous (i.e. some numbers are absent).
SpellHRG.	The spell level Core HRG. The first of the spell level output. Be careful to avoid double-counting when using spell level fields.
SpellDominantProcedure.	DominantProcedure, but at spell level.
SpellPDiag	The primary diagnosis used when spell grouping.
SpellSDiag	The 1st secondary diagnosis used when spell grouping.
SpellEpisodeCount	The number of episodes in the spell
SpellLoS	The duration of the spell used for grouping
ReportingSpellLoS	The length of stay used when generating reports.
SpellTrimpoint.	The trimpoint for the HRG allocated to the spell.
SpellExcessBeddays.	The number of days the spell exceeds the trimpoint.
SpellCCDays	The number of critical care days in the spell.
SpellSSC1	The first possible SSC produced for the spell. The grouper does not check eligibility. All SSCs possible are output, for organisational SSC eligibility, check DH guidance.
SpellSSC2	The second possible SSC produced for the spell.
…	
SpellSSC10	The tenth possible SSC produced for the spell.
UnbundledHRGs	An aggregate of all unbundled HRGs produced for episodes in the spell.

5. File_[filename]_quality.csv. This file contains one row per episode for all episodes in a spell that have an error, including episodes in that spell that do not have any errors (those records do not have an error message). This means that the user can see all of the input data and all error messages for a spell that has failed validation. Its structure is as follows.

<input data>	All of the input data for the FCE, including any non-mandatory fields are reproduced in the output.
RowNo.	The row number field mentioned in the "sort" file. It is unique within the file.

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Error Message.	A variable number of fields containing the error message. Each message is the three fields shown in the relational quality file separated by pipe "|" symbols.

6. File_[filename]_FCE_rel.csv. This file contains the FCE level output in relational form. There are a fixed number of columns.

RowNo.	The row number field mentioned in the "sort" file. It is unique within this file.
FCE_HRG.	The episode level Core HRG.
GroupingMethodFlag.	An indication of the grouping method used for the episode. "P" = procedure driven, "D"=diagnosis driven.
DominantProcedure.	The dominant procedure used for procedure based grouping.
FCE_PBC.	This field is populated in reference costs groupers only. It contains the Programme Budgeting Category.
CalcEpidur.	The calculated episode duration. This is the input Episode duration minus the number of critical care days entered.
ReportingEpidur.	The episode duration used when generating reports.
FCETrimpoint.	The episode trimpoint for the HRG allocated to the episode.
FCEExcessBeddays.	The number of days that the episode exceeds the trimpoint.
SpellReportFlag.	Used when generating reports from grouped data.

7. File_[filename]_spell_rel.csv. This file contains the Spell level output in relational form. There are a fixed number of columns. One entry will be produced per spell.

RowNo.	The key into other files.
SpellHRG.	The spell level Core HRG. The first of the spell level output. Be careful to avoid double-counting when using spell level fields.
SpellDominantProcedure.	DominantProcedure, but at spell level.
SpellPDiag	The primary diagnosis used when spell grouping.
SpellSDiag	The 1st secondary diagnosis used when spell grouping.
SpellEpisodeCount	The number of episodes in the spell
SpellLoS	The duration of the spell used for grouping
ReportingSpellLoS	The length of stay used when generating reports.
SpellTrimpoint.	The trimpoint for the HRG allocated to the spell.
SpellExcessBeddays.	The number of days the spell exceeds the trimpoint.

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SpellCCDays	The number of critical care days in the spell.

8. File_[filename]_quality_rel.csv. All of the error messages in relational form. There will be no entries for FCEs or Spells that have no errors produced.

RowNo.	The key into other files.
Iteration	In conjunction with RowNo, provides a unique key for the record.
Code Type	The field type causing the problem.
Code	Where populated, the value of that code causing the problem.
Error Message	Explanation of the problem.

9. File_[filename]_ssc_rel.csv. The SSCs produced during the run. There will be no entries for Spells that have no SSCs produced.

RowNo.	The key into other files. In this case it will be the row number associated to the spell/first episode in the spell.
Iteration	In conjunction with RowNo, provides a unique key for the record.
SSC	The SSC derived for the parent spell

10. File_[filename]_ub_rel.csv. The unbundled HRGs produced during the run. There will be no entries for episodes that do not have any unbundled HRGs.

RowNo.	The key into other files. In this case it will be the row number associated to the episode in the spell.
Iteration	In conjunction with RowNo, provides a unique key for the record.
UnbundledHRG	The unbundled HRG

11. File_[filename]_summary.csv. A single-row file containing details about the grouping run:

Grouper Version.	The version of the grouper that produced the run.
FCE Count	The number of episodes submitted to the run.
Spell Count	The number of spells submitted to the run.
FCE Error Count	The number of episodes with errors.
Spell Error Count	The number of spells with errors.
Run Start Date/Time	The data/time that the run started.
Run End Date/Time	The data/time that the run finished.

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Input Filename	The path and filename of the input file.
Input Filename	The path and filename of the first output file mentioned above.
RDF path and name	The path and filename of the rdf file used in the run.

Non Admitted Care

A single input file produces seven output files.

1. File_[filename].csv. Contains a list of all the other files produced. This file will normally be ignored.

2. File_[filename]_attend.csv. This is sometimes known as the attendance flat output. Its structure is as follows:

<input data>	All of the input data for the attendance, including any non-mandatory fields are reproduced in the output.
RowNo.	A unique row number field applied when grouping. This serves as the key for other output files.
NAC_HRG.	The Core HRG for the attendance.
GroupingMethodFlag.	An indication of the grouping method used for the attendance.
DominantProcedure.	The dominant procedure used for procedure based grouping.
UnbundledHRGs	A variable number of fields containing unbundled HRGs. Unbundled HRGs are appended to the end of each record; there may be zero, one or more unbundled HRGs per record.

3. File_[filename]_quality.csv. This file contains one row per attendance that contain errors. Its structure is as follows:

<input data>	All of the input data for the attendance, including any non-mandatory fields are reproduced in the output.
RowNo.	The row number field mentioned in the attend file. It is unique within the file.
Error Message.	A variable number of fields containing the error message. Each message is the three fields shown in the relational quality file separated by pipe "|" symbols.

4. File_[filename]_attend_rel.csv. This is sometimes known as the attendance relational output. Its structure is as follows:

<input data>	All of the input data for the attendance, including any non-mandatory fields are reproduced in the output.

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RowNo.	A unique row number field applied when grouping. This serves as the key for other output files.
NAC_HRG.	The Core HRG for the attendance.
GroupingMethodFlag.	An indication of the grouping method used for the attendance.
DominantProcedure.	The dominant procedure used for procedure based grouping.

5. File_[filename]_quality_rel.csv. All of the error messages in relational form. There are no entries for attendances that do not contain errors.

RowNo.	The key into other files.
Iteration	In conjunction with RowNo, provides a unique key for the record.
Code Type	The field type causing the problem.
Code	Where populated, the value of that code causing the problem.
Error Message	Explanation of the problem.

6. File_[filename]_ub_rel.csv. The unbundled HRGs produced during the run. There are no entries for attendances that do not have unbundled HRGs.

RowNo.	The key into other files.
Iteration	In conjunction with RowNo, provides a unique key for the record.
UnbundledHRG	The unbundled HRG

7. File_[filename]_summary.csv. A sinlge-row file containing details about the grouping run:

Grouper Version.	The version of the grouper that produced the run.
Attendance Count	The number of attendances submitted to the run.
Attendance Error Count	The number of attendances with errors.
Run Start Date/Time	The date/time that the run started.
Run End Date/Time	The date/time that the run finished.
Input Filename	The path and filename of the input file.
Input Filename	The path and filename of the first output file mentioned above.
RDF path and name	The path and filename of the rdf file used in the run.

Emergency Medicine

A single input file produces five output files.

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1. File_[filename].csv. Contains a list of all the other files produced. This file will normally be ignored.

2, File_[filename]_attend.csv. This is sometimes known as the attendance flat output. Its structure is as follows:

<input data>	All of the input data for the attendance, including any non-mandatory fields are reproduced in the output.
RowNo.	A unique row number field applied when grouping. This serves as the key for other output files.
EM_HRG.	The Core HRG for the attendance.

3. File_[filename]_quality.csv. This file contains one row per attendance that have errors. Its structure is as follows:

<input data>	All of the input data for the attendance, including any non-mandatory fields are reproduced in the output.
RowNo.	The row number field mentioned in the attend file. It is unique within the file.
Error Message.	A variable number of fields containing the error message. Each message is the three fields shown in the relational quality file separated by pipe "|" symbols.

4. File_[filename]_quality_rel.csv. All of the error messages in relational form. There will be no entries for attendances that have no errors produced.

RowNo.	The key into other files.
Iteration	In conjunction with RowNo, provides a unique key for the record.
Code Type	The field type causing the problem.
Code	Where populated, the value of that code causing the problem.
Error Message	Explanation of the problem.

5. File_[filename]_summary.csv. A single-row file containing details about the grouping run.

Grouper Version.	The version of the grouper that produced the run.
Attendance Count	The number of attendances submitted to the run.
Attendance Error Count	The number of attendances with errors.
Run Start Date/Time	The date/time that the run started.
Run End Date/Time	The date/time that the run finished.

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Input Filename	The path and filename of the input file.
Input Filename	The path and filename of the first output file mentioned above.
RDF path and name	The path and filename of the rdf file used in the run.

Adult Critical Care

A single input file produces five output files.

1. File_[filename].csv. Contains a list of all the other files produced. This file will normally be ignored.

2. File_[filename]_acc.csv. Its structure is as follows.

<input data>	All of the input data for the attendance, including any non-mandatory fields are reproduced in the output.
RowNo.	A unique row number field applied when grouping. This serves as the key for other output files.
ACC_HRG.	The unbundled HRG for the ACC period. All ACC HRGs are unbundled.
Calc_CC_Days.	The number of CC days derived from the start and end dates entered. This will be -1 if there are problems with the dates.
CC_Warning_Flag.	Set to F, for Fail, if Calc_CC_Days is -1 or any of the checks mentioned below have failed. This is not a part of the "cruel" input validation. A single data row can fail here but also have a valid (non U group) HRG.

Validation Checks

Calc_CC_Days = CC Discharge date - CC Start Date + 1

Set warning flag if:

Calc_CC_Days = -1; or

CCL2 Days + CCL3 Days > Calc_CC_Days; or

ARSD + BRSD > Calc_CC_Days; or

ARSD + BRSD > CCL2 Days + CCL3 Days

3. File_[filename]_quality.csv. This file contains one row per ACC record that contains errors. Its structure is as follows.

<input data>	All of the input data for the record, including any non-mandatory fields are reproduced in the output.
RowNo.	The row number field mentioned in the acc file. It is unique within the file.

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Error Message.	A variable number of fields containing the error message. Each message is the three fields shown in the relational quality file separated by pipe "|" symbols.

4. File_[filename]_quality_rel.csv. All of the error messages in relational form. There will be no entries for records that have no errors produced.

RowNo.	The key into other files.
Iteration	In conjunction with RowNo, provides a unique key for the record.
Code Type	The field type causing the problem.
Code	Where populated, the value of that code causing the problem.
Error Message	Explanation of the problem.

5. File_[filename]_summary.csv. A one row file containing details about the grouping run:

Grouper Version.	The version of the grouper that produced the run.
ACC Record Count	The number of attendances submitted to the run.
ACC Record Error Count	The number of attendances with errors.
Run Start Date/Time	The date/time that the run started.
Run End Date/Time	The date/time that the run finished.
Input Filename	The path and filename of the input file.
Input Filename	The path and filename of the first output file mentioned above.
RDF path and name	The path and filename of the rdf file used in the run.

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